...HERN ✣ FARM ✣ NOTES.

TOPICS OF INTEREST TO THE PLANTER, STOCKMAN AND TRUCK GROWER.

Nitrogen Fertilizer.

Maryland station experiments with nitrogenous fertilizers are published in a bulletin that discusses the early use of nitrogenous fertilizers, the importance of nitrogen as a plant food, loss of nitrogen from the soil, general conditions indicating the need of nitrogen, quantity of nitrogen annually removed from Maryland farms, the origin and supply of nitrogen in soils, nitrification, sources of nitrogen, the use of the free nitrogen of the atmosphere by plants, and artificial inoculation.

The object was to compare different times of applying nitrate of soda, just before planting with or without lime, at period of most active growth, and one-half before planting and one-half at a time of most active growth, to test the comparative effects of nitrate of soda and sulphate of ammonia and of lime applied with mineral sources of nitrogen, to compare nitrate of soda combined with sulphate of potash with nitrate of potash, to compare different sources of organic nitrogen, including dried blood, raw and dissolved hair waste, bone tankage, dried fish, cottonseed meal and stable manure, and to test the effect of treating hair and leather waste with acid.

The materials were applied in amounts supplying thirty-two pounds of nitrogen per acre. The crops for which data are given are corn, wheat and hay.

The results in general favor the application of nitrate of soda before planting rather than after the crop is partially grown, and indicate that a topdressing of this substance pays well as a rule on wheat which for any cause, either poor land or from late seeding, is backward in the spring, although its use is of doubtful benefit on land which is well supplied with plant food.

Nitrate of soda gave uniformly and decidedly better results than sulphate of ammonia, both with and without lime.

Nitrate of potash gave better results than nitrate of soda combined with a potash salt (sulphate), but the advantage was not great enough to warrant the difference in cost which usually prevails.

The organic sources of nitrogen were not as active as nitrate of soda. Of the three principal forms tested blood stood first as regards effectiveness, leather second and hair last.

About Autumn Chickens.

Raising fall chickens, to some extent, is a pretty general custom, and a good one, too, we think. But, our observation is, that as a rule they are started too late in the season—the setting of hens, we mean. For, like spring hatches, the earlier ones are the best.

Most people wait until September to set fall eggs, when the best time is six weeks earlier. In fact, the chicks that come out between the twenty-fifth of July and the first of September make the best progress, the most rapid and the largest growth. Last year we set eggs from the first of July until the first of October with a view of raising late chickens; and the truth is, that, while the July and early August hatched chickens size up in weight, etc., almost with the spring hatched, and are still developing, those that were hatched in September and October are noticeably smaller—the eggs from the pullets being decidely undersized. Plumage plays an important part in the matter of growth with the late-hatched chicken, and the chick that comes out early enough to get a fairly good coating of feathers while the weather is still mild, will continue an uninterrupted growth during the winter; while those that are hatched so late as to be still unfeathered when the chilly blasts begin to blow will still be undeveloped when the spring shall have come again, for it is certainly up-hill business for an ilty-feathered chicken to make rapid growth in cold weather.

In view of these facts, we advocate early autumn and fall hatching, for one early August brood is really worth two hatched as late as October. Another thought, the person who aspires to raise chickens for market now, should hatch them off as soon as possible. It is possible to begin now and raise a number of late chickens up to the frying size, and market them long before the season is entirely gone. Hatched by the middle of August or first of September, they would have eight to ten weeks in which to grow while it should be mild and pleasant. Indeed, as we view it, based upon past experience, now is an auspicious time in which to hatch and develop early autumn chickens, either for market, or for utility at home.—H. B. Geer, in Southern Cultivator.

Whole Milk Calves Profitless.

Of course when there is no sale for cream or butter it is no expense to raise calves on a whole milk diet. But on the other hand, there are many others doing very much the same thing as is described in the following from the Family:

An object lesson in daily management was furnished me recently, which helps to prove a common error among a certain class of farmers. This farmer sold to the butcher two very young calves that had been with their dams getting all the milk for seven months. They weighed a little over 1000 pounds and sold for $31. The farmer was pleased with the transaction, and remarked that he was making some money. Upon investigation I learned some facts which will illustrate what I have in mind. The cows were good grade Shorthorns, above the average as milkers.

They were fed on fine blue grass pasture, and I estimated that while these calves were following them they gave at least fifteen pounds of milk each per day for the seven months' period. Thus the two calves consumed at least 6300 pounds of milk, which at a very moderate estimate would have been worth $30 to $34 if sold at the shipping station in the form of cream. It is not surprising that the calves were very fat, fed on such expensive feed. At a moderate estimate and with good care the farmer should have sold at least $25 worth of milk and cream from each cow and raised a calf worth $10 on the skim milk, or as much profit from one cow as he received from the two.

This is but a concrete example of what is taking place on hundreds of farms where the old idea is still held that it pays to raise calves by giving them the entire milk of the cow. One of the greatest profits to be made from the combined dairying and veal raising is because of the fact that skim milk will produce calves of almost as high quality as will whole milk and at a greatly reduced cost.

Preparing Land For Corn.

L. G. B., Catawba, writes: Where I turn under rye and crimson clover for a corn crop and then use forty to fifty bushels of rock lime to the acre would 300 pounds of sixteen per cent. acid phosphate do. Expect to work the same land in corn again next year.

Answer: You are certainly preparing your land well for corn by plowing under rye and crimson clover. Crimson clover is to be preferred because it is a leguminous crop and will thus add largely to the available supply of nitrogen in the soil.

By rock lime you possibly mean the ground rock before it has been burned. Caustic lime is much more effective and is to be preferred on that account, and I do not presume there is very much difference in the cost of the two. Fifty bushels of rock lime is not a heavy application, however, as it becomes very slowly available in this form. Twenty-five bushels of burned lime will be a good application and it should not be made more than once in three to five years. Three hundred pounds of sixteen per cent. acid phosphate is a liberal amount to use of one of the very necessary elements needed in a corn crop, for you recognize that phosphorous has largely to do with the formation of grain, and as a rule there is not very abundant supply of it available in our soils. You might add fifty pounds of muriate potash to your mixture with advantage for corn.

While land treated as you propose will grow good crops of corn for several years it is not advisable to bring corn on your land year after year unless it is absolutely necessary. Put it down in clover and grass for a year or two and then grow some other cereal, such as wheat, oats or barley, and give it a rest from corn, and the land will continue to improve and grow larger crops from year to year.—Knoxville Journal.

Feeding Grain to Horses.

Many horses have a bad habit when fed oats, shelled corn, or dry ground feed, of filling the mouth with the food and then turning the head away so that much of it drops out upon the ground and is wasted. On a large farm where all the grain is home grown, and there are chickens running at will through the stable, the real waste is not great. But in the case of those who have to buy all their feed and whose chickens can not pick up the dropped grain, the loss is a serious matter.

We know a case where the loss has been prevented by putting the feed into a nose-bag and slipping the cord over the head back of the ears. The bag used in this case is a regular feed bag such as is used by draymen and teamsters in cities to feed without unhitching. They are made of heavy canvas with a wooden bottom, there are holes in front for ventilation while the horse is eating. They can be bought at any harness store for about seventy-five cents. It is a little more trouble to feed in a bag than just putting the grain into a box, but the saving is ample pay for all the trouble.—Florida Agriculturist.

VEGETABLES DO NOT ABSORB TYPHOID GERMS

Even if Bacteria Are Present on Roots and Leaves They Are Not Able to Reach the Interior Structure.

Inasmuch as the claim is at times made that typhoid fever is communicated through the agency of vegetables grown in a soil infected with typhoid bacilli through drainage or otherwise, it is of interest to study a recent European investigation by Dr. Cl...ditz dealing with this subject.

He found that when fresh typhoid bacilli were placed in the earth they were not particularly adaptive to new conditions, and did not flourish, but if they were associated with other bacteria which were native to the soil they were more hardy, and could be propagated in the form of cultures which will endure in the ground for several months.

Using some bacteria developed in this way, a thorough test of the susceptibility of vegetables for harboring these micro-organisms was made. First there were planted in soil thus infected peas, radishes, cress and other vegetables, which were allowed to grow until several inches in height. They were then cut off level with the ground, and after being washed with sterilized water they were bruised in bouillon, a substance which is particularly favorable for the development of bacteria. The results showed that in only one of the four experiments could any typhoid bacilli be detected.

It was then determined to ascertain whether the bacteria penetrated to the interior of the plants, and for this purpose their surface was first washed with a solution of bichloride of mercury, which would have the effect of killing any germs with which it came in contact, but at the same time would not necessarily penetrate to the interior and act on any micro-organisms in the inner tissue of the plant. The plants were then tested as before, with negative results, and the conclusion was reached that even in the event of bacteria being present on the roots or leaves they were not able to reach the interior structure.—Harper's Weekly.

Tricky Brain Cell.

The anatomy of the nervous system and consequently its physiology was regarded in the past as very simple. Cayal showed that the specific brain cell is an independent unit provided with multiple processes, by means of which it is capable of acting not through one nerve alone, but several. The independent brain unit or cell is called a neuron.

A simple illustration of how the neuron works is furnished by our not infrequent hunt for a name or an idea which we know we possess. We feel that the name is there, but we can not recall it. We get various names near it, beginning even with the same letter or the same vowel sound, yet only after minutes or even hours does it actually occur to us.

What is supposed to happen is that the particular cell of intellection which we are using throws out its process among the cells of memory for names and through this process is brought in connection with cells containing similar names; it is only after a more or less prolonged search that it hits on the right one. It is as if the telephone operator in the central office felt around blindly for the connection wanted and only after putting the plug into various holes eventually struck the proper one.—Booklover's Magazine.

The Chair's Reply.

Walter McArthur, who is winning a reputation as a raconteur, told a good one about Samuel Gompers at the Berean Club the other night. Gompers had been having a set-to with one of the leaders of the Socialist wing of the American Federation of Labor, and had just ruled the speaker off the floor.

"But didn't you rule the other way this morning?" shouted the delegate, indignantly.

"In whose case?" inquired the Chair.

"Oh, I don't know whose, but——"

"Then," drawled Gompers, in his most urbane manner, "the Chair is willing to confess that it is unable to answer the question which the delegate is unable to propound."—San Francisco Chronicle.

Barn Struck, Filled With Smoke.

The only damage reported in this vicinity as a result of the recent electrical storms is at the farm of H. M. Barr, a mile south of Edgewood, where a barn was struck by lightning and filled with smoke, without a trace of fire being found. The barn was full of cattle at the time, none of which was injured in any manner.—Manchester correspondence Des Moines Register and Leader.

Himself a Victim.

A Harvard sophomore was reciting a memorized oration in one of the classes in public speaking. After the first two sentences his memory failed, and a look of blank despair came over his face. He began as follows:

"Ladies and Gentlemen: Washington is dead, Lincoln is dead"—then, forgetting, he hesitated a moment and continued, "and—I—I am beginning to feel sick myself."—Boston Herald.

SUGAR.

An urchin one day stuck his tongue
Through a hole in a bar'l called the bongue,
But a bee lit on it,
And the boy had a fit,
And loud was the song that he songue.
—Houston Post.

THE OLD STORY.

"I," announced Pa Twaddles yesterday, "am going to get a new set of false teeth."

"I wish you wouldn't," sighed Tommy T., wearily. "Ma'll be cutting down your old ones now an' makin' me wear 'em!"—Cleveland Leader.

FEMININE INTUITION.

"A woman should know without asking whether her husband is happy," said the modest wife.

"I can tell," answered young Mrs. Torkins. "When Charley comes home late to dinner and can't speak above a whisper I know the home team has won another game."—Washington Star.

HARD TO PLEASE.

He—"Then I am to understand that you have given me the mitten, as it were?"

She—"You have said it."

He—"And is this all?"

She—"Of course it is. What more do you want—a pair of socks?"—Columbus Dispatch.

A GUARANTEE.

"I don't believe in valentines," said Miss Cayenne.

"Why not?"

"If a man really loves a girl he will be willing to take a chance on making his avowal in his own handwriting and over his own signature."—Washington Star.

"He tried to keep a straight face."—Life.

DREAMS OF SUMMER.

"Really now," remarked the observer of events and things, "when you are shivering with the cold at night, with your head partly covered and your feet not at all, wouldn't you just love to hear the music of a summer mosquito as he approached and kissed your frozen nose?"—Yonkers Statesman.

HA! HA! HA!

"I'm undecided," said the dressy man, "whether to get white flannel or linen trousers this summer."

"Well," remarked Jokely, "there's two things I'd never have for trousers."

"What? Flannel and linen?"

"No, a coat and vest."—Philadelphia Press.

COMING TO HIM.

"She is very rich, but she has a violent temper. Why, she throws anything she can lay her finger on at her husband."

"Why doesn't he leave her?"

"Because he's hoping that some day she'll forget herself and throw her money at him, too."—Detroit Free Press.

GOOD SIGN.

"There's only one good thing about that young puppy that came to see you last night," said the irascible father, "and that is he's healthy."

"I'm surprised to hear you admit that much," replied the dutiful daughter.

"I wouldn't except for the fact that when you met him in the hall last night I heard you say, 'Oh, George, how cold your nose is!'"—London Tit-Bits.

NOT THE SAME.

"Oh, yes, he's tender-hearted. I really believe if a beggar approached him and he had no money about him he'd actually take off his coat and give it to him."

"Well, I'm not tender-hearted, but some of these nervy beggars make me feel like taking off my coat and giving it to them—good and proper."—Philadelphia Press.

Berlin railways are running special "tree blossom" trains to the outlying districts to enable town dwellers to enjoy the spring flowers and foliage.

STAND...P

The Cost of Building and Oper... 40,000 Miles of Its Carrying System.

Detailed information as to the cost of building and operating pipe lines is not now available, and no official figures have ever been published showing the total mileage of existing pipe lines—because it is the settled policy of the Standard to keep these facts securely locked against public scrutiny. But the investigation of 1899 developed two very significant admissions. In that year Mr. Rockefeller stated, under oath, that "to perfect the pipe line system transportation required in the neighborhood of $50,000,00 of capital." In the two years immediately following—1900 and 1901—the cash dividends declared and paid by the Standard Oil Company amounted to $96,000,000—nearly double the sum needed to "perfect" the entire pipe line system then in use, and within $4,000,000 of the entire capital of the company, which is $100,000,000. That clearly demonstrates the low cost of pipe line construction, as related to the enormous profits of the industry.

In the same year, 1899, Henry H. Rogers testified as to the existing mileage of the Standard pipe lines: "We probably have 35,000 miles or more scattered all over the country." Since that time many additions and extensions have been laid in every oil field in the United States; the oil regions of Kansas and Indian Territory have been largely developed, and a trunk line is building from the Kansas fields to Chicago. Thus we are entirely safe in assuming that fully 40,000 miles of pipe line are now embraced in the Standard oil system.

This means simply that the Standard Oil Company is now in complete, arbitrary and exclusive control of more miles of transportation facilities than three of the greatest railroad systems of the world! Here are the official figures, as reported in 1904:

Ry. systems	Employes	Track mileage
Pennsylvania	160,706	19,720
New York Central	45,842	7,158
Baltimore and Ohio	45,000	7,359
Grand totals	251,548	34,237

But oil is cheap, you say? Yes; much cheaper than it used to be, because of the enormous increase in production—but not nearly so cheap as it would be under free and fair competition.

The Difference.

We were pleased with an instance we came across the other day of the readiness of an attache at the British Embassy in St. Petersburg. At dinner at the palace he had the misfortune to upset his glass of claret. "Fait-on cela en Angleterre?" asked the Czar from the other end of the table. "Oh, yes," came the answer, but in England, "on ne le remarque pas."—London Saturday Review.

TWO VIEWS

"Will it be possible for Wadleigh to recover from that railroad accident?"

"Well, the doctors say no, but the lawyers say yes."—Milwaukee Sentinel.

Shaeen Baba.

The Shaeen Baba is common in nearly all North India towns. This follower of the prophet of Arabia goes about the streets with a hooka all ready for smoking. He calls out to the passersby "Bhaia hooka pulao"—"Brother, have a smoke." The Hindus will take the chillum—the bowl containing the fire—and smoke direct from it without the intervention of the nooka. The Mussulman takes a pull or two from the snake of the hooka. Occasionally he gets a copper or two from those who enjoy his hooka. He blesses the giver with the words, "Abad rahio; khus raho"—"Prosper in this world; be happy."—Allahabad Pioneer.